

# Guide to the Competency-based Learning Survey for Students

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# **Summary**

Many states are moving away from approaches that base student advancement on credits and "seat time" toward competency-based learning approaches that provide schools with the flexibility to link a student's advancement to mastery of content. Regional Educational Laboratory Northeast & Islands, in partnership with the Northeast College and Career Readiness Research Alliance, has developed a new survey—the Competency-based Learning Survey for Students—to help high schools and school districts collect data on student experiences with competency-based learning. Policymakers and practitioners need this information to improve implementation of and communication about competency-based learning with students.

The survey is designed to be administered to students attending high schools in which competency-based learning is being implemented. It collects information on students' beliefs about, exposure to, and understanding of key elements of competency-based learning. These elements include instructional practices that allow students to progress through demonstration of mastery, receive personalized instruction and learning opportunities, demonstrate mastery through flexible assessment, and develop specific skills and dispositions that may be especially critical under competency-based learning.

The guide describes the survey in greater detail, including why it was developed, how to administer and adapt it, and how to analyze the results. The guide also includes the version of the survey that was developed for use with high school students in New Hampshire.

# **Contents**

Summary	i
What is the Competency-based Learning Survey for Students?	1
Why was the survey developed?	1
About the survey	3
How to administer the survey	4
How to adapt the survey	5
How to analyze the survey results	6
The Competency-based Learning Survey for Students Introduction	<b>8</b> 8
Module A: Student demographics	8
Module B: Student beliefs and understanding	9
Module C: Progression through demonstration of mastery	12
Module D: Personalization	13
Module E: Flexible assessment	14
Module F: Development of skills and dispositions	15
Appendix A. Developing the survey	A-1
Appendix B. Example figures and tables	B-1
Notes	Notes-1
References	Ref-1
Box	
1 Key elements of competency-based learning	2
Figures	
B1 Percentage of students selecting each statement as most true when asked why	
their school uses a competency-based grading system, 2014/15	B-1
B2 Percentage of students reporting exposure to specific practices and experiences	БТ
associated with progression through demonstration of mastery, 2014/15	B-2
Tables	
1 Survey constructs, modules, and items of the Competency-based Learning	
Survey for Students	4
2 Comparison of select survey items adapted for use in New Hampshire and Maine	6
B1 Number and percentage of students selecting each statement as most true when	
asked why their school uses a competency-based grading system, 2014/15	B-1
B2 Number and percentage of students reporting exposure to specific practices and	
experiences associated with progression through demonstration of mastery. 2014/15	B-2.

## What is the Competency-based Learning Survey for Students?

In partnership with the Northeast College and Career Readiness Research Alliance, Regional Educational Laboratory (REL) Northeast & Islands developed the Competency-based Learning Survey for Students to help high schools and school districts collect data on student experiences with competency-based learning. The survey is designed to be administered to students attending high schools in which competency-based learning is being implemented. It collects information on students' beliefs about, exposure to, and understanding of key elements of competency-based learning. These elements include instructional practices that allow students to progress through demonstration of mastery, receive personalized instruction and learning opportunities, demonstrate mastery through flexible assessment, and develop specific skills and dispositions that may be especially critical under competency-based learning.

## Why was the survey developed?

Many states are moving away from approaches that base student advancement on credits and "seat time" toward competency-based learning approaches that provide schools with the flexibility to link advancement to a student's mastery of content (Scheopner Torres, Brett, & Cox, 2015). Many terms are used to describe approaches to teaching and learning in which students advance after demonstrating mastery, including competency-based learning, competency-based education, proficiency-based learning, mastery-based learning, and standards-based learning. This guide uses the term competency-based learning.

The movement toward competency-based approaches addresses the recommendation from the National Center on Time & Learning (2011) that learning programs should account for the different amounts of time student populations need to achieve proficiency, and should consider "advancement based on mastery, rather than 'seat time'" (p. 37). This shift also reflects the position that students are more engaged in their learning when they are granted greater flexibility in how they earn credit (U.S. Department of Education, 2011).

The seven states in the REL Northeast & Islands Region (Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont) are actively exploring initiatives designed to increase high school completion rates and ensure student readiness for college and careers. Since 2003 Maine, New Hampshire, Rhode Island, and Vermont have made policy changes to encourage implementation of competency-based learning across their states by requiring all school districts to make high school graduation contingent on a student's mastery of all required competencies. School districts in Connecticut, Massachusetts, and New York can choose to implement one or more elements of competency-based learning but are not required to do so.

Previous research done in collaboration with the Northeast College and Career Readiness Research Alliance suggests that the nature of implementation varies across states, as well as among school districts within a state (Scheopner Torres et al., 2015). Within and across states, school districts vary in the extent to which they base student progression on demonstration of mastery rather than fulfillment of seat time requirements. School districts also vary in how much they have incorporated personalization practices, flexible assessment, and development of skills and dispositions that promote student success under competency-based learning. Some variability is driven by implementation challenges,

Many states are moving away from approaches that base student advancement on credits and "seat time" toward competencybased learning approaches that provide schools with the flexibility to link advancement to a student's mastery of content

which include understanding and addressing student misconceptions about competency-based learning, helping students take greater ownership over their own learning under competency-based learning, and carrying out necessary yet substantial shifts in instruction, assessment, and grading in the classroom (Scheopner Torres et al., 2015).

Currently, few high schools or school districts systematically collect information on how much competency-based learning approaches are being implemented. Alliance members have indicated that more research is needed to help states implement competency-based learning successfully. Specifically, regional stakeholders have reported that information on students' beliefs about, exposure to, and understanding of key elements of competency-based learning could help policymakers and practitioners in the REL Northeast & Islands Region and elsewhere improve implementation and communication with students. As a result, alliance members requested support in developing a survey to measure students' beliefs about, exposure to, and understanding of key elements of competency-based learning (box 1). Alliance members specifically desired a survey that could be used in high schools and school districts that have adopted some form of competency-based learning, including early and more advanced stages of implementation.

Information on students' beliefs about, exposure to, and understanding of key elements of competency-based learning could help policymakers and practitioners improve implementation and communication with students

The need expressed by stakeholders in the REL Northeast & Islands Region aligns with national research underscoring the importance of examining students' perceptions of and experiences with competency-based learning (Lewis et al., 2014; Steele et al., 2014). Recent

#### Box 1. Key elements of competency-based learning

Rather than a single approach, competency-based learning comprises multiple elements. A growing research consensus suggests that key elements of competency-based learning include progression through demonstration of mastery, personalization, flexible assessment, and development of specific skills and dispositions (Patrick & Sturgis, 2011, 2013; Scheopner Torres et al., 2015; Steele et al., 2014). These elements include:

- Progression through demonstration of mastery requires a student to demonstrate that he or she has learned what was expected before moving on to the next level.
- Personalization refers to the provision of individualized support, flexible pacing, and opportunities for student choice in how to demonstrate mastery.
- Flexible assessment includes exposure to multiple modes of assessment, which allows students to demonstrate mastery in a variety of ways rather than through only one assessment (for example, a written test).
- Development of specific skills and dispositions such as perseverance and a capacity to self-direct one's learning may be especially important in a competency-based learning system where student agency and choice are emphasized (Lewis et al., 2014).

States and school districts in the Regional Educational Laboratory Northeast & Islands Region implementing competency-based learning also identify taking responsibility for one's work, collaboration, and respect for others as important student skills and dispositions.

While there is general agreement about key elements of competency-based learning, its implementation varies substantially across states and school districts (Scheopner Torres et al., 2015; Steele et al., 2014). Competency-based learning policies and practices can range from reforms that simply allow flexibility in awarding credit to reforms that completely transform the education system "from a time-based system to a learning-based system" (Sturgis & Patrick, 2010, p. 4).

research suggests that differential access to learning experiences under competency-based learning could produce differential levels of learning (Lewis et al., 2014). With information on students' exposure to and understanding of competency-based learning, school and district policymakers and practitioners could examine potential differences in students' experiences and how such differences may be related to student outcomes (Lewis et al., 2014; Steele et al., 2014).

Based on the need expressed by stakeholders and the recent research supporting this need, the study team formed and worked closely with an advisory committee to develop the Competency-based Learning Survey for Students. The committee included six members: two teacher-leaders<sup>2</sup> from a Connecticut school district, a researcher from a Maine university, a high school teacher (also a former researcher) from Maine, a district administrator from New Hampshire, and a high school principal from Vermont. All advisory committee members worked in or with schools that were at various stages in the implementation of competency-based learning.

# **About the survey**

Potential survey users include administrators, teachers, and other staff in high schools that have already implemented or are beginning to implement competency-based learning and desire information on how students understand and experience this reform. The survey is intended to provide these high schools and school districts with a resource for measuring students' beliefs about, exposure to, and understanding of key elements of competency-based learning. For example, survey results will provide information on what students believe about specific instructional policies and practices associated with competency-based learning, whether students understand the school or district rationale for implementing specific policies and practices, and the extent to which students are exposed to specific policies and practices.

The survey includes 30 items (questions or statements) and their respective subitems. It was designed using an iterative process (see appendix A) and allows users to collect information on several constructs (an abstract idea, underlying theme, or subject matter that is represented by several individual survey items), represented by groups of survey items organized into an introductory section and six survey modules (table 1).

Because of the wide variability in implementation of competency-based learning, survey users may select which modules to administer based on the elements of competency-based learning that have been implemented in their local context. Module A collects demographic information to help users understand the student population taking the survey. Module B addresses students' beliefs and understanding about competency-based learning. With information from module B, school or district administrators and staff can gauge the extent to which student understanding is consistent with the school's or district's rationale for implementing different elements of competency-based learning. These data can also help identify specific elements of competency-based learning about which students may need additional information. For example, the results may suggest a need for clearer communication with students about the rationale behind specific competency-based learning policies and practices (for example, why homework is not always graded).

Each of the remaining four modules (modules C–F) collects data on students' exposure to a key element of competency-based learning: progression through demonstration of mastery,

The Competencybased Learning Survey for Students is intended to provide high schools and school districts with a resource for measuring students' beliefs about, exposure to, and understanding of key elements of competencybased learning

Table 1. Survey constructs, modules, and items of the Competency-based Learning Survey for Students

Construct	Description	Module	Items	Approximate time to complete
Student demographics	Demographics of the responding student	Α	A1-A7	1 minute
Student beliefs about competency-based learning	Beliefs about specific aspects of schooling that are likely to be influenced by the implementation of competency-based learning		B1	2 minutes
Student understanding of competency-based learning	Understanding of the rationale behind specific school policies or practices that reflect key elements of competency-based learning	В	B2-B14	5 minutes
Progression through demonstration of mastery	Exposure to explanation of the competencies and how to demonstrate progress toward mastery of competencies	С	C1-C2	2 minutes
Personalization	ersonalization Exposure to multiple options for earning course credit as well as personalized instruction and learning opportunities		D1-D3	3 minutes
Flexible assessment	Exposure to flexible assessment	Е	E1-E2	2 minutes
Development of skills and dispositions	Exposure to opportunities to develop skills and dispositions including respect for others, perseverance, self-directedness, and collaboration	F	F1-F2	3 minutes

Source: Authors' compilation.

personalization, flexible assessment, and development of specific skills and dispositions. With data from these modules, school or district administrators and staff can identify how well students' reported exposure to elements of competency-based learning aligns with how the school or district intends the elements to be implemented. For example, if many students report that instruction includes mostly whole-class lecture by the teacher or that students mostly work on the same assignment at the same time, this response pattern might suggest that students experience little exposure to personalization. Data from these modules could also be used to examine relationships among students' beliefs about elements of the approach, students' exposure to specific elements of the approach, and students' understanding of the rationale behind why the school uses those elements.

Further, if combined with existing student data, the survey data could be used by school and district administrators to examine associations among students' beliefs about competency-based learning, students' exposure to specific elements of competency-based learning, students' understanding of competency-based learning, and students' outcomes.

Finally, the survey was developed to be used in high schools at various stages of implementation of competency-based learning. In schools at earlier stages of implementation, students are likely to experience varying degrees of competency-based learning policies and practices across their courses. Capturing this variability through the survey will provide schools with a snapshot of schoolwide implementation. Further, administering the survey annually will allow schools to observe, at the school level, how students' beliefs about, exposure to, and understanding of competency-based learning policies and practices change over time. This may be especially useful in schools at early stages of implementation.

# How to administer the survey

The Competency-based Learning Survey for Students can be adapted to fit the local context. While it can be distributed to students as a paper-and-pencil survey, it is intended to be administered online, which makes it easier for schools to administer the survey and

If combined with existing student data, the survey data could be used by school and district administrators to examine associations among students' beliefs about competency-based learning, students exposure to specific elements of competencybased learning. students' understanding of competency-based learning, and students' outcomes calculate descriptive results. Online administration also reduces the likelihood of errors during administration and analysis. It should take students about 15–20 minutes to complete the survey when all six modules are administered.

# How to adapt the survey

Survey users may adapt any part of the survey for their own use. For example, the survey presented in this document was tailored for collecting data from high school students in New Hampshire and thus uses language specific to that state.

The Competencybased Learning Survey for Students can be adapted to fit the local context

In adapting the survey, users should first revise the introduction so that it describes the purpose of the survey, why it is important for students to complete, and how the data will be used. Second, users should review the survey items to ensure that the terminology will be familiar to students in the local context. For example, New Hampshire high schools use the term competency-based learning, and in many schools in the state, staff and students regularly talk about the competencies that students must master as well as the competency-based grading system. In contrast, the term proficiency-based learning is used in Maine, and many Maine high school students have the option to earn a proficiency-based diploma. While staff and students in some schools may talk about demonstrating progress on standards (rather than about mastering competencies, as in New Hampshire), staff do not necessarily use the language of standards with students in all schools. Instead, school staff may use more indirect language to describe expectations for students—for example, by referring to the importance of learning the material covered in the course or of completing lessons and units.

Variability in the terminology related to competency-based learning—as well as variability in whether and how specific terms are used with students—means that survey users must carefully consider the terminology used in their locales and adapt the survey introduction and relevant survey items accordingly. To illustrate how the same survey items might need to be revised for use in different contexts, examples of select survey items adapted for use in New Hampshire and in Maine are shown in table 2.3

The survey was designed such that all respondents would review the survey introduction and complete module A. However, users should determine which of the other modules are appropriate based on the elements of competency-based learning that have been implemented in their local context.

Since module B collects information on students' beliefs about competency-based learning (see item B1) and students' understanding of the rationale behind elements of competency-based learning that have been implemented at their school, module B is likely to be appropriate for students in most contexts. For each of the items related to student understanding (items B2–B14) students are first asked whether a specific policy or practice is used at their school. Students who respond affirmatively (for example, "yes," "often," or "sometimes") are routed to an item that asks them to select the response that they believe best describes why the policy or practice is used at their school. Students who respond "no," "never," or "don't know" are routed to the next relevant survey item using survey skip logic.

Modules C–F each focus on a specific element of competency-based learning, and users should select from these modules based on which elements are being implemented in their local context. For example, if implementation of competency-based learning in the local

Table 2. Comparison of select survey items adapted for use in New Hampshire and Maine

Module	Item	New Hampshire	Maine
В	В8	Do any of the courses at your school use a competency-based grading system?	Do any of the courses at your school use a proficiency-based grading system?
В	B12	At this school, when teachers talk about competencies, they are referring to:  • The courses a student must take to graduate  • The important skills and knowledge a student must learn to graduate  • The required credits a student must complete to graduate  • I'm not sure what teachers mean when they talk about competencies  • Teachers do not talk about competencies	At this school, when teachers talk about standards, they are referring to:  The courses a student must take during high school  The important skills and knowledge a student must learn during high school  The required credits a student must complete during high school  I'm not sure what teachers mean when they talk about standards  Teachers do not talk about standards
С	C1	I must show my teachers that I have mastered each competency before I can move on to the next one	I must show my teachers that I am ready for new material before I can begin a new lesson or unit in my courses
С	C2	I understand how the competencies in my courses will help me in the future.	I understand how the material I am studying in my courses will help me in the future

**Source:** Authors' construction based on versions of the Competency-based Learning Survey for Students administered in New Hampshire and Maine.

context involves progression through demonstration of mastery and flexible assessment but does not involve a focus on personalization or on specific skills and dispositions, users would not administer module D or module F.

Finally, where survey items refer to students' courses, students are asked to reflect on all of their courses at the school. If a school intends to implement competency-based learning only in a specific course or in specific courses, any survey items referring to a student's courses will need to be revised accordingly—for example, by using language such as "in this course." Similarly, survey items that refer to a particular timeframe, such as a semester, may need to be revised to reflect the timeframe of interest at the school. Further, administering the survey at the beginning of a particular period, such as a school year, might pose challenges because students will have limited experience in their current courses to report on.

# How to analyze the survey results

Survey users can calculate descriptive statistics, including frequencies and cross-tabulations of item responses. Each survey item requires respondents to select from one of several options. Some items require students to select from response options that have no natural ordering: A2–A4, A7, B3, B5, B7–B9, and B11–B14. These items are best summarized by calculating the number and percentage of respondents that select each option. Examples of how results for this type of item might be presented as a figure or a table are provided in figure B1 and table B1 in appendix B.

Other items require respondents to select from options that share a natural ordering: A1, A5, A6, B1, B2, B4, B6, B10, C1, C2, D1–D3, E1, E2, F1, and F2. These items can be summarized by calculating the number and percentage of respondents who select each option or by using measures of central tendency (for example, means and medians) and variability (variances and standard deviations). This class of items includes Likert-type items, which typically assume a negative-to-positive dimension underlying the discrete (often, five to

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seven) response options—for example, a dimension ranging from strong agreement to strong disagreement. Item B1 is an example of a Likert-type item.

An item that uses a categorical frequency scale also requires respondents to select from options that share a natural ordering. Items that use a categorical frequency scale assume an infrequent-to-very-frequent dimension underlying the discrete response categories—for example, a dimension ranging from never to always. Examples of how results for an item that uses a categorical frequency scale might be presented as a figure or table are provided in figure B2 and table B2 in appendix B.

Researchers often analyze Likert-type items and items that use a categorical frequency scale by treating the response options as if they were based on an interval scale (a scale in which there is an equal distance between response options). For both Likert-type items and items that use a categorical frequency scale, the study team advises that if means and standard deviations (interval scale statistics) are reported for individual items, the percentage or frequency of students who selected each option should also be reported to support informed interpretation of the results at the item level. In addition, respondents who select "not sure" on these item types should be analyzed separately (that is, not included in the calculation of means) because this response would not fall along the natural ordering of the responses.

The survey was tested with a small sample of high school students (see appendix A), but users are encouraged to conduct additional testing and to report those results. For example, before administering the survey statewide a state could administer the survey in a subset of school districts to determine whether the survey is working as intended. Similarly, a district could first test the survey with a subset of high schools (or with a subset of students in school districts with only one high school). The survey should not be used to evaluate student or teacher performance or to inform decisions about funding for competency-based learning. Data should be evaluated in aggregate to inform school- or district-level decisions on topics such as communication with students about competency-based learning or implementation of different elements of competency-based learning.

The survey was tested with a small sample of high school students, but users are encouraged to conduct additional testing and to report those results

# **The Competency-based Learning Survey for Students**

The remainder of this guide presents the Competency-based Learning Survey for Students used in New Hampshire.

#### Introduction

This is a survey about your experiences at this school and in your courses at this school. All of your answers will be confidential.

This survey is NOT A TEST and there are no right or wrong answers. We really hope you will try to answer every question, but you may skip any question you do not wish to answer. Your responses will be collected through a secure survey system and all data will be encrypted and stored on secure servers. All information from this survey will be reported about your school or district as a whole. No one will be able to connect individual responses to you or to any other student.

It should take about 15–20 minutes to complete the survey. By clicking on "NEXT" you agree to participate in this study.

#### Module A: Student demographics

<b>A1.</b>	What is your current grade level?
	Grade 9
	☐ Grade 10
	☐ Grade 11
	☐ Grade 12
A2.	Are you male or female?
	☐ Male
	☐ Female
	☐ Prefer not to say
A3.	Is this your first year in this high school?
	☐ Yes
	□ No
A4.	Did you attend school in this school district last year?
,-	Yes
	□ No
A 5	What is your current high school grade point average (GPA)?
115.	□ 0.00–1.00
	☐ 1.01–2.00
	☐ 2.01–3.00 ☐ 2.01–3.00
	3.01–4.00
	4.01–5.00
	□ Not sure

Currently, how many of your courses are you taking as online courses! An online
course is one in which you complete all instruction and assignments over the
Internet.
□ None
□ 1–2
$\Box$ 3 or more
How much education do you expect to complete?
☐ Less than high school
☐ High school diploma
□ GED
☐ Associate's degree
☐ Some college but less than a bachelor's degree
☐ Bachelor's degree
☐ Master's degree
☐ Doctoral or advanced professional degree

## Module B: Student beliefs and understanding

This set of questions asks about practices and requirements at your school. Your responses to these questions will help school leaders and teachers understand students' experiences at your school. Like all questions in this survey, there are no right or wrong answers to these questions.

B1. For the following statements, indicate how much you agree or disagree.

Subitem	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The graduation requirements at my school will prepare me for what I want to do after high school					
Students should get more than one opportunity to show whether they have learned the important course material					
Students should get more than one opportunity to pass a test or exam					
Homework is important to complete even if it is not graded					
If two students in the same course complete different types of assignments, they should still have the opportunity to earn the same grade in the course					
My grades are a good reflection of what I have learned					
Most colleges will know what my course grades mean. In other words, most colleges will know how to evaluate the grades I've received in the courses I've taken at my school					

For some of the next several items, several options may seem SOMEWHAT TRUE. However, you should choose the response that is the MOST TRUE at your school.

B2.	In courses at my school, students must show their learning on each competency in more than one way. For example, students must show that they have mastered the competency on more than one assignment, assessment, or exam. [Skip logic will be used.]  Never (Skip to item B4)  Sometimes  Often  Don't know (Skip to item B4)
В3.	Why do you think students must show their learning on each competency in more than one way? Choose the response that seems MOST TRUE about this school.  ☐ A student's grade in the course should be based on multiple scores  ☐ Teachers need multiple opportunities to see whether students have learned the material  ☐ Students stay on task better if they have enough work to do  ☐ Completing multiple assignments and tests helps prepare students for the state standardized test
B4.	In courses at my school, students are able to choose how they want to show what they have learned from several different options. For example, options such as taking a test, writing a paper, completing a project, etc. [Skip logic will be used.]  Never (Skip to item B6)  Sometimes  Often  Don't know (Skip to item B6)
B5.	Why do you think students in courses at this school are able to choose how they want to show their learning? Choose the response that seems MOST TRUE about this school.  Most students know how they learn best Some students aren't good at taking tests/exams Each student should be able to get an A in the course It is good for students to have variety in their work
B6.	Students at my school are able to progress at their own individual pace in courses.  [Skip logic will be used.]  Never (Skip to item B8)  Sometimes  Often  Don't know (Skip to item B8)
В7.	Why do you think students in courses at this school are able to progress at their own individual pace? Choose the response that seems MOST TRUE about this school.  ☐ Some students fall behind if they have been absent a lot ☐ Some students are less interested in certain topics ☐ Some students may need different amounts of time to learn the material ☐ Some students don't complete all of their work on time

B8.	Do any of the courses at your school use a competency-based grading system? [Skip logic will be used.]  Yes  No (Skip to item B10)  Don't know (Skip to item B10)
B9.	<ul> <li>Why do you think all or some of the courses at your school use a competency-based grading system? Choose the response that is MOST TRUE at your school.</li> <li>Teachers do a better job of grading student work under a competency-based grading system</li> <li>Students take fewer tests under a competency-based grading system</li> <li>A competency-based grading system makes it easier for all students to graduate from high school</li> <li>A competency-based grading system provides better information about what a student has learned</li> </ul>
B10.	Students at my school are assigned homework. [Skip logic will be used.]  Never (Skip to item B12)  Sometimes  Often  Don't know (Skip to item B12)
B11.	Why do you think students at this school are assigned homework? Choose the response that seems MOST TRUE at this school.  ☐ Homework provides students with opportunities to practice a skill before being assessed on that skill  ☐ Students in high school should have homework almost every night to learn the material  ☐ Teachers don't have time to teach all of the important material during class  ☐ Completing several hours of homework most nights helps students get ready for college
B12.	At this school, when teachers talk about competencies they are referring to:  The courses a student must take to graduate  The important skills and knowledge a student must learn to graduate  The required credits a student must complete to graduate  I'm not sure what teachers mean when they talk about competencies  Teachers do not talk about competencies
B13.	Do you have to master specific competencies in any of your courses in order to graduate from your high school? [Skip logic will be used.]  Yes  No (Skip to next module)  Don't know (Skip to next module)
B14.	Has a principal or teacher explained to you why it is important to master specific competencies to graduate from your high school?  Yes  No Don't know

## Module C: Progression through demonstration of mastery

In this section of the survey, you will answer some questions related to courses at this school, including how students make progress in their learning.

C1. For these items, indicate about how often each of the following happens in your courses at this school.

Subitem	Never	Seldom	Sometimes	Often	Always	Not sure
I know what I need to do to show my teachers that I am making progress on each competency						
I must show my teachers that I have mastered each competency before I can move on to the next one						
I am able to move on to the next competency when I am ready, even if other students in the course are not ready						
Students in my courses work on the same competency at the same time						

C2. Indicate about how often each of the following happens in your courses at this school.

Subitem	Never	Seldom	Sometimes	Often	Always	Not sure
I understand how the competencies in my courses will help me in the future						
My teachers share examples of excellent work on each competency						
My teachers let me know how my work will be assessed or graded for each competency						
My teachers give me a rubric so that I know how I am progressing on each competency						

#### **Module D: Personalization**

Now you will answer some questions about different options students have for earning credit in courses at this school. You will also answer questions about different ways that teachers work with students. Again, there are no right or wrong answers to these questions.

D1. Think about the courses you are taking right now. For about how many of your courses is each of the following options true?

Subitem	None	Some	All or most	Not sure
I am able to complete some or all of the course requirements online				
If I complete a project that wasn't assigned at school but is related to a course I am taking, I can earn credit for the project in that course				
I can earn credit for taking courses at another high school				
I can earn credit for taking courses at a college (for example, "dual-credit courses")				
I can earn credit for completing an internship or job- shadowing in the community				

D2. For these items, indicate about how often this happens in courses at this school.

Subitem	Never	Seldom	Sometimes	Often	Always	Not sure
Students in my courses all work on the same assignment at the same time						
My teachers spend most of class time giving a lecture or presentation to the whole class						
My teachers work with students in small groups or individually						
My teachers notice if I need extra help						
My teachers teach the material in several different ways in order to help students learn						

D3. For these questions, think about how often each event occurred during the current semester.

Subitem	Never	1 2 times	3 4 times	5 or more times	Not sure
My teachers or a counselor/advisor discussed how I am doing on each competency with me					
My teachers gave me written feedback on my work					
I have had opportunities to choose how to show my teachers what I have learned					

#### Module E: Flexible assessment

Thanks for being honest in your answers to the survey questions. Remember, there are no right or wrong answers. In this section of the survey, you will answer some questions about how you are asked to show your learning in your courses. In other words, these questions ask about different kinds of assessments used at this school.

E1. For these questions, think about how often each event occurred during the current semester.

Subitem	Not at all	1 2 times	3 4 times	5 or more times	Not sure
I have created drawings or models to show what I have learned					
I have taken tests or quizzes to show what I have learned					
I have given a performance to show what I have learned (for example, performing in a video or skit/play, playing an instrument)					
I have given a presentation to show what I have learned					
I have completed a project at school to show what I have learned					
I have completed a project in the community to show what I have learned					

E2. For each item, indicate about how often this happens in the courses you are taking.

Subitem	Never	Seldom	Sometimes	Often	Always	Not sure
If I do poorly on an assessment on the first try, I can try again later						
To show that I have mastered a course competency, I must demonstrate my learning in more than one way						

## Module F: Development of skills and dispositions

This section includes a few more questions about teaching and learning at this school. Again, there are no right or wrong answers to these questions.

F1. For each item, indicate about how often this happens in the courses you are taking.

Subitem	Never	Seldom	Sometimes	Often	Always	Not sure
Teachers encourage students to respect the feelings of others						
Teachers show or explain to students how to treat each other with respect						
Teachers explain to students how they can disagree with each other respectfully						
When I have trouble learning something new, my teachers give me advice and strategies that help me to keep trying						
My teachers notice when I take extra time and effort on something that is difficult for me						
If I get a low score on an assessment, my teachers help me figure out how I can still do well in the class						

F2. For each item, indicate about how often this happens in the courses you are taking.

Subitem	Never	Seldom	Sometimes	Often	Always	Not sure
Teachers show or explain strategies students can use to keep track of their progress on each of the competencies						
Teachers show or explain strategies students can use to complete all assignments and assessments on time						
Teachers encourage students to take responsibility for their work						
I know which steps to take during high school in order to prepare for what I want to do after I graduate						
If I need information that I don't have in order to complete an assignment, I know where to get it						
If it is difficult for me to get an assignment done on my own, I know strategies I can use so that I'm sure to get the work finished on time						
Teachers show or explain strategies students can use to help each other learn						
Teachers show or explain strategies students can use to work together successfully in groups						
Teachers encourage students to help each other outside of class						

# Appendix A. Developing the survey

The study team used seminal survey development resources, including Dillman, Smyth, and Christian (2008), Fowler (2008), Rea and Parker (2005), and Wright and Marsden (2010), to guide the development of the survey instrument. Survey development relied on close collaboration between the study team and the study advisory committee. Because implementation of different elements of competency-based learning varies across high schools and school districts, the study team developed separate survey modules to address each competency-based learning element, making it easier for users to adapt the survey to meet local needs.

#### Developing the constructs to be measured

Six Northeast College and Career Readiness Research Alliance members served on the study's advisory committee.<sup>4</sup> These individuals served as content experts who advised the study team throughout the survey development. Ongoing collaboration between the advisory committee and the study team was critical to ensure that the survey items would elicit useful, valid, and reliable information about students' beliefs about, exposure to, and understanding of the key elements of competency-based learning in school districts in the region. The study team held several meetings with the advisory committee to generate the list of constructs that the survey would measure. From this list the study team developed a table of specifications that served as the basis for developing survey items in the next stage (see table 1 in the main text).

Given substantial variability in implementation of competency-based learning policies and practices at the school and district levels, each survey construct was addressed through a separate survey module. This approach allows survey users to determine which modules apply to their local context. Research has demonstrated that despite a growing consensus about key elements of competency-based learning, not all competency-based learning policies and practices require all the elements; schools and school districts often choose to implement only certain elements (Scheopner Torres et al., 2015; Steele et al., 2014).

## Developing and refining a pool of survey items

The study team developed an initial pool of survey items aimed at providing complete coverage of the constructs outlined in the table of specifications. The initial item pool included more items than were necessary to ensure complete coverage. The advisory committee members then reviewed all items and gave the study team feedback. This process was used to evaluate the items' face validity and content validity.

The study team refined the item pool based on the advisory committee's feedback. For example, items that were considered irrelevant or nonessential for representing the constructs were removed, and the wording and format of remaining items were revised as needed. Decisions were made about the response options for multiple-choice and Likert-type items. The iterative process continued until the study team and advisory committee agreed that the item pool covered the constructs completely and constituted a survey of reasonable length (in other words, a survey that could be administered without overburdening the survey respondents or the school staff that would administer it). The refined item pool formed the survey's first draft.

#### Refining the survey draft using cognitive interviewing methodology

The study team administered the initial survey draft to seven students: four who were attending a Maine high school and three who were attending a New Hampshire high school. Different terminology is used in the two states (for example, Maine uses proficiency-based learning, while New Hampshire uses competency-based learning) and the two high schools were at different stages in the implementation of competency-based learning. Administering the first draft of the survey to students in two different contexts allowed the study team to consider how specific items performed when adapted for the local context.

Cognitive interviews were conducted with the seven students. Cognitive interviewing is a method for identifying and correcting problems with surveys that involves administering a draft survey to a respondent while concurrently interviewing him or her to determine if the survey items are eliciting the information that the researcher intends (Beatty & Willis, 2007). During cognitive interviews respondents were asked to think aloud as they completed the survey, thereby making explicit some of their interpretations of instructions, items, and response choices, as well as their decision points.

The survey is intended to be administered online to make it easier for schools to administer it and calculate descriptive results, and to reduce the likelihood of errors during administration and analysis. Therefore, cognitive interview respondents were given an online version of the survey that was developed using the Qualtrics online survey platform. After each student completed the survey, the study team used a structured protocol to gather detailed feedback about the student's perceptions of the survey items (for example, understanding of questions and relevance of response options) and about the survey as a whole.

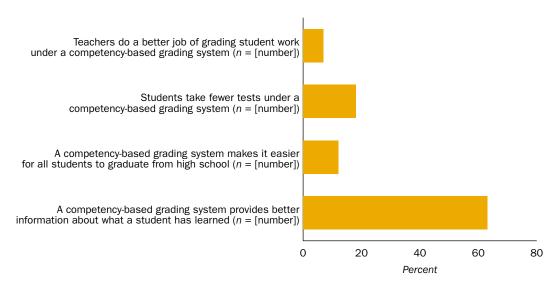
#### Finalizing the survey

Information gathered during the cognitive interviews was analyzed and discussed by the advisory committee and study team to improve the clarity, relevance, length, and coverage of survey items. The study team and advisory committee worked together to determine the most appropriate ways to revise the survey to address the issues and concerns raised by the respondents during the cognitive interviewing process. At the end of this stage the study team produced the final survey draft and a map between the items and their constructs (see table 1 in the main text).

# **Appendix B. Example figures and tables**

An example of how data for item B9 might be presented as a figure is provided in figure B1, while an example of how data for this item might be presented as a table is provided in table B1. Brackets indicate values to be supplied by users based on survey responses.

Figure B1. Percentage of students selecting each statement as most true when asked why their school uses a competency-based grading system, 2014/15



**Note:** [Number] of [number] survey respondents indicated that a competency-based grading system was used at their school. These respondents were then asked, "Why do you think all or some of the courses at your school use a competency-based grading system?" Respondents could select only one of four options. Of the [number] survey respondents presented with the item represented in the figure, [number] did not respond to the item.

Source: Authors' analysis of the Competency-based Learning Survey for Students.

Table B1. Number and percentage of students selecting each statement as most true when asked why their school uses a competency-based grading system, 2014/15

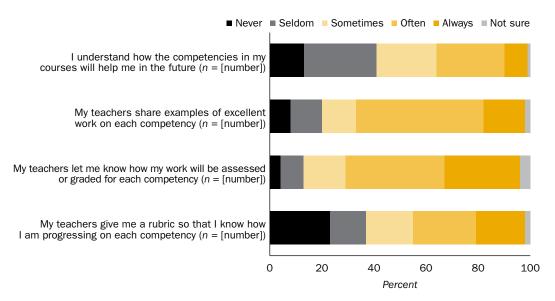
	Students responding "most true at my sch		
Statement	Number	Percent	
Teachers do a better job of grading student work under a competency-based grading system	[number]	[percent]	
Students take fewer tests under a competency-based grading system	[number]	[percent]	
A competency-based grading system makes it easier for all students to graduate from high school	[number]	[percent]	
A competency-based grading system provides better information about what a student has learned	[number]	[percent]	

**Note:** [Number] of [number] survey respondents indicated that a competency-based grading system was used at their school. These respondents were then asked, "Why do you think all or some of the courses at your school use a competency-based grading system?" Respondents could select only one of four response options. Of the [number] survey respondents presented with the item represented in the figure, [number] did not respond to the item.

Source: Authors' analysis of the Competency-based Learning Survey for Students.

An example of how data for item C2 might be presented as a figure is provided in figure B2, and an example of how data for this item might be presented as a table is provided in table B2.

Figure B2. Percentage of students reporting exposure to specific practices and experiences associated with progression through demonstration of mastery, 2014/15



**Note:** Respondents were asked to indicate "about how often each of the following happens in courses at this school."

Source: Authors' analysis of the Competency-based Learning Survey for Students.

Table B2. Number and percentage of students reporting exposure to specific practices and experiences associated with progression through demonstration of mastery, 2014/15

Statement	Never	Seldom	Sometimes	Often	Always	Not sure
I understand how the competencies in my courses will help me in the future $(n = [number])$	[percent]	[percent]	[percent]	[percent]	[percent]	[percent]
My teachers share examples of excellent work on each competency $(n = [number])$	[percent]	[percent]	[percent]	[percent]	[percent]	[percent]
My teachers let me know how my work will be assessed or graded for each competency (n = [number])	[percent]	[percent]	[percent]	[percent]	[percent]	[percent]
My teachers give me a rubric so that I know how I am progressing on each competency (n = [number])	[percent]	[percent]	[percent]	[percent]	[percent]	[percent]

**Note:** Respondents were asked to indicate "about how often each of the following happens in courses at this school." **Source:** Authors' analysis of the Competency-based Learning Survey for Students.

## **Notes**

- 1. Various terms are used to describe an approach to teaching and learning in which students advance after demonstrating mastery, including competency-based education, proficiency-based learning, mastery-based learning, and standards-based learning. This report uses the term competency-based learning.
- 2. The two teacher-leaders are on special assignment in their district and are providing leadership and guidance as the district transitions to a competency-based approach to learning and instruction.
- 3. For a copy of the complete Maine version of the survey, contact REL Northeast & Islands at relneiinfo@edc.org.
- 4. The following individuals served on the advisory committee for this study and were integral to the development of the survey: Kenneth Daly (Connecticut), Lori Gunn (Maine), Derek Hamilton (New Hampshire), Andre Messier (Vermont), Melanie Montagnon (Connecticut), and Erika Stump (Maine).

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